

**REMARKS**

This Amendment is filed in response to the Final Office Action mailed June 7, 2006. The Applicant respectfully requests reconsideration of the rejections and entry of this document. All objections and rejections are traversed.

Claims 1-20 are pending in the case.

Claims 19 has been amended to correct a minor error. Specifically, the preamble of the claim has been corrected to read a “method,” to conform with the method steps in the body of the claim. The Applicant believes such correction is appropriate for entry after Final Rejection as it does not require a new search or significant new consideration by the Examiner.

No new claims have been added.

***Claim Rejections - 35 U.S.C. §103***

At paragraphs 2-14 of the Final Office Action, claims 1-20 were rejected under 35 U.S.C. §103(a) as obvious over Lin et al., U.S. Patent Publication No. 2002/0073211 (hereinafter Lin), in view of Wolff, U.S. Patent No. 6,886,035 (hereinafter Wolff), in further view of Jeddoloh et al., U.S. Patent No. 6,330,647 (hereinafter Jeddoloh).

The Applicant’s claim 1, representative in part of the other rejected claims, sets forth:

1. A load balancing system for distributing tasks to a processor resource of a processor pool, the system comprising:
  - a memory with a region organized into at least one memory block, each memory block configured to store a session;
  - an interface for coupling the memory to the processor resource, whereby the processor resource accesses the at least one memory block to update information associated with the session;
  - an access monitor*** coupled to the interface, wherein the access monitor passively ***recognizes and tracks memory cycles*** by snooping memory address and control lines associated with the at least one memory

block during a specified period of time and *collects statistics associated with the session*; and

a central resource coupled to the access monitor, the *central resource arranged to receive the statistics from the access monitor, and, in response thereto, to assign tasks to the processor resource.*

Lin discloses a load balancer (Fig. 2 and 3, item 128) interconnected to a plurality of webserver (Figs. 2 and 3, items 130, 132, 134). The load balancer receives and screens browser requests (i.e. packets) from a computer network before sending them across other network links to a selected webserver. *See* Paragraph 0009. A browser interface (Fig. 2 item 202), internal to the load balancer, is responsible for reading the packets from the network. After the packets are read, a traffic flow measuring module (Fig. 2, item 204) analyzes the packets directed to each webserver. *See* Paragraph 0037. If a webserver looks to be overloaded, the load balancer redistributes requests among the webserver. *See* Paragraphs 0037 and 0039)

Wolff discloses a technique for “rebalancing” I/O requests sent from a plurality of clients across a computer network to a plurality of servers coupled to remote resources (i.e. imaging devices, printers, memory devices, data sets). *See* col. 2, lines 39-49. To avoid any single server from being overused, i.e. receiving too many I/O requests (*see* col. 2 lines 7-11), a heavily used server may send redirection requests to clients to direct them to send subsequent I/O requests across the computer network to idle servers that also have access to the resources. *See* col. 2, lines 50-67 and col. 4, lines 62-66. A server determines it is being overused by a software module (*see* col. 5, 45-50 and col. 8, lines 50-53) that monitors receipt of I/O requests from the computer network, and quantifies I/O usage. *See* col. 11, lines 25-31.

Jeddeloh discloses a technique for arbitrating memory requests based upon count values associated with different requesters, i.e. devices or processes that issue memory requests. *See* col. 1, lines 54-55 and col. 2, lines 18-28. As part of the technique, a memory interface “may monitor (snoop) memory bus 118 activity and empirically set and

adjust requestor access count values... wherein the more frequently a requestor seeks to access memory 116 (relative to other requestors) the larger its access count value is set.”  
See col. 5, lines 5-11.

The Applicant draws the Examiner’s attention to the claim phrases “*an access monitor...[that] recognizes and tracks memory cycles ... and collects statistics associated with the session*” and a “*central resource arranged to receive the statistics from the access monitor, and, in response thereto, to assign tasks to the processor resource.*”

The Applicant respectfully urges that the Lin, Wolff, and Jeddeloh do not suggest the Applicant’s claimed use of **statistics** descriptive of memory accesses, as a basis for load balancing. In contrast, both Lin and Wolff teach the use of statistics descriptive of the number of network messages (packets) sent on a computer network between devices (separate web servers in Lin, and separate clients and servers in Wolff), as a basis for load balancing. This is far different than what the Applicant claims. Specifically, while a number of network messages (packets) received at a device provides some indication of the load on the device, it is a crude and imprecise measure. Such measure would readily suffer many of the shortcomings the Applicant describes in the Background section of the Application, for example those described at page 3, lines 3-12.

The Examiner appears to acknowledge that Lin and Wolff do not suggest statistics descriptive of memory accesses, and further points to Jeddeloh. Yet it is important to note that Lin and Wolff teach away from such combination. That is, to combine Jeddeloh with Lin and Wolff one would need to selectively ignoring the portions of Lin and Wolff that teach using statistics based on numbers of network messages, and substitute a different basis. MPEP 2145(X)(D) cautions against combination references in these circumstances, stating:

**References Cannot Be Combined Where Reference Teaches Away from Their Combination**

It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779

(Fed. Cir. 1983) (The claimed catalyst which contained both iron and an alkali metal was not suggested by the combination of a reference which taught the interchangeability of antimony and alkali metal with the same beneficial result, combined with a reference expressly excluding antimony from, and adding iron to, a catalyst.).

Accordingly, the Applicant respectfully urges the combination with Jeddeloh with Lin and Wolff is inappropriate.

Yet even if Jeddeloh is combined with Lin and Wolff, the Applicant's claims are still not shown. Jeddeloh sets access count values based on frequency of memory access to a memory bank. *See* col. 5, lines 5-11. Yet, Jeddeloh is silent concerning ***statistics associated with a session***. Jeddeloh appears to pay little attention to sessions, being simply concerned with frequency of requests. Thus, even if Jeddeloh is combined with Lin and Wolff, aspects of the Applicant's claims are still not suggested.


Accordingly, the Applicant respectfully urges that Lin, Wolff, and Jeddeloh are legally insufficient to make obvious the present claims under 35 U.S.C. §103 because of the Applicant's claimed novel "***an access monitor...[that] recognizes and tracks memory cycles ... and collects statistics associated with the session***" and a "***central resource arranged to receive the statistics from the access monitor, and, in response thereto, to assign tasks to the processor resource.***"

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

  
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